

having a first motor for driving the worktable;

B. A drill bit unit provided with a rotatable drill bit;

C. An elevator supporting said drill bit unit and shiftable along a vertical axis to raise or lower the drill bit with respect to the blank on each worktable, and a second motor for driving the elevator;

D. A carriage carrying said elevator and shiftable along a horizontal axis to move the drill bit back and forth with respect to said blank, said carriage being driven by a third motor; and

E. A processor to coordinate the operation of the first, second and third motors to cause said drill bit to shape the blank to form a filter lens of the desired geometry.

29. (New) A machine as set forth in Claim 28, in which said first, second and third motors are stepping motors each powered by a train of dc pulses the polarity of which determines the extent and direction of movement.

30. (New) A machine as set forth in Claim 29, in which said computer controls the stepping motors by varying the number of pulses in the train and their polarity.

31. (New) A machine as set forth in 28, in which the drill bit drills holes in said blank to receive plugs of a clip for anchoring the clip on the filter lens so that the accessory can be hitched onto the eyeglasses.

32. (New) A machine as set forth in Claim 28, which the drill bit unit is driven to rotate continuously by a motor.

33. (New) A machine as set forth in Claim 32, in which the drill bit unit is self-sufficient and can be decoupled from its drive motor.

34. (New) A machine as set forth in 28, in which digitally stored in a database of the computer is digital data regarding the predetermined geometry of the frame, from which data the

computer controls the motors to produce a filter lens having a matching geometry.

35. (New) A machine as set forth in Claim 34, further including an electronic scanner to scan the frame of the eyeglasses to which the clip-on is to be hitched, the scanner supplying the computer with a digital image of the frame from which the data stored in the database is obtained.

36. (New) A machine as set forth in Claim 28, in which each worktable is driven by its own said first motor through a shaft, further including means to tension said shaft to maintain the worktable at a set position.

37. (New) A machine as set forth in Claim 36, in which the tension means is provided by a spiral spring surrounding said shaft wherein one end of the spring is attached to the shaft, and the other end to a fixed body.

38. (New) A machine as set forth in Claim 28, wherein the machine is adapted to perform drilling, milling, cutting, matching and engraving operations by means of the same drill bit.

39. (New) A machine for shaping blanks to create a pair of lenses to be attached onto the frame of a pair of eyeglasses, mounted in half sections of the frame, said frame having a predetermined geometry; said machine comprising:

- A. A pair of worktables each to support one of the blanks to be shaped, and each having a first motor for driving worktable;
- B. A drill bit unit provided with a rotating drill bit;
- C. An elevator supporting said drill bit unit and shiftable along a vertical axis to raise or lower the drill bit with respect to the blank on each worktable, and a second motor for driving the elevator;
- D. A carriage carrying said elevator and shiftable along a horizontal axis to move the drill bit back and forth with respect to said blank, said carriage being driven by a third motor;

and

E. A processor to coordinate the operation of the first, second and third motors to cause said drill bit to shape the blank to form a lens of the desired geometry.

40. (New) A machine as set forth in Claim 39, in which said first, second and third motors are stepping motors each powered by a train of dc pulses the polarity of which determines the extent and direction of movement.

41. (New) A machine as set forth in Claim 39, in which said processor controls the stepping motors by varying the number of pulses in the train and their polarity.

42. (New) A machine as set forth in Claim 39, in which the drill bit unit is driven to rotate continuously by a motor.

43. (New) A machine as set forth in Claim 42, in which the drill bit unit is self-sufficient and can be decoupled from its drive motor.

44. (New) A machine as set forth in Claim 39, in which digitally stored in a database of a computer is digital data regarding the predetermined geometry of the frame, from which data the computer controls the motors to produce a lens having a matching geometry.

45. (New) A machine as set forth in Claim 39, in which each worktable is driven by its own said first motor through a shaft, further including means to tension said shaft to maintain the worktable at a set position.

46. (New) A machine as set forth in Claim 45, in which the tension means is provided by a spiral spring surrounding said shaft wherein one end of the spring is being attached to the shaft, and the other end to a fixed body.